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Applicant: SMITHS IND PLC

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ERIC PAGAN

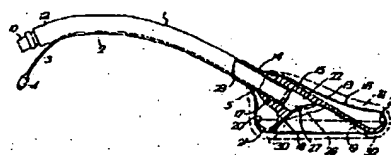
PHARYNX LID MASK AIRWAY AND PRO-
DUCTION THEREOF

Abstract:

PROBLEM TO BE SOLVED: To provide an improved pharynx lid mask assembly and its production.

SOLUTION: This pharynx lid mask assembly has a mask section formed from a flexible bag 16 surrounding an instrument 15 adhered on the patient side terminal part of a tube 1. The bag 16 is sealed to the instrument 15 around an opening 22 at the patient side terminal part of the tube. A neck 23 of the bag 16 is sealed to the tube 1 at the back of an opening 5 from an expansion lumen 2 so that the bag is expanded to form a cushion 30 on the fore surface of the instrument 15. The instrument 15 is bent backward around an outer end 20 and besides, the bag 16 is expanded away from the rear surface of the instrument so as to provide an expandable cushion 31 existent behind the instrument.

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Applicant: SMITHS IND PLC

Inventor: PAGAN ERIC

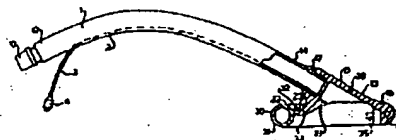
LARYNX MASK ASSEMBLING BODY AND
ITS PRODUCING METHOD

Abstract:

PROBLEM TO BE SOLVED: To provide an improved larynx mask assembling body and its producing method, which is produced at a low cost without the burden of a patient.

SOLUTION: A thin and long tube 1 and a mask part 13 provided in the patient side end part of the tube are provided and the mask part 13 is provided with an almost oblong fitting member 15 with an opening 20 communicating with the patient side end part of the tube in the larynx mask assembling body. In the assembling body, hollow and cylindrical cuff members 30 arranged in the periphery of the fitting member 15 are provided, the cuff members 30 are provided with attachment flanges 32 which are projected from the cuff members 30 to side parts along the length of the cuff members 30 are provided and the cuff members 30 are fitted to the fitting member by the attachment flanges 32.

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Applicant: SMITHS IND PLC

Inventor: PAGAN ERIC

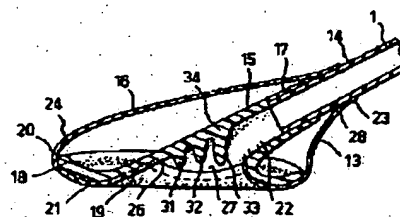
LARYNX MASK ASSEMBLY

Abstract:

PROBLEM TO BE SOLVED: To provide a larynx mask assembly improved so that the epiglottis does not cause closure by entering an air passage through the air duct during insertion.

SOLUTION: A larynx mask assembly has an elliptical mask part 13 at the patient end 14 of a tube 1, the mask part 13 having a mounted member 15 mounted to the tube and a cuff part 16 extending to surround the circumference of the mounted member. The patient end 14 opens to the center of the mounted member 15, and the mounted member has three horizontal ribs 31, 32, 33, which project forward and extend parallel to and away from one another. The front end of each rib has a recessed contour with a round projection at its end. The ribs 31-33 hold the epiglottis away from a tube opening during insertion of the assembly and work to provide an air passage leading to the tube.

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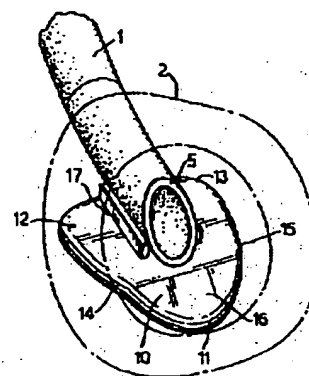
Applicant: SMITHS IND PLC
Inventor: PAGAN ERIC
TUBE ASSEMBLY WITH CUFF

Abstract:

PROBLEM TO BE SOLVED: To correctly position an assembly such as an airway with a pharynx part or a mask for the pharynx part by arranging a cuff to enclose a plate member protruding toward an end part on the side of a patient of a tubular member outward the tubular member while matching the contour thereof when reduced.

SOLUTION: A bend pipe 1 as tubular member is provided with an expansible cuff 2 at an end part on the side of a patient thereof and the cuff 2 is so arranged to enclose a plate member 10 which is made almost triangular having rounded corner parts 11-13 with two sides 14 and 15 thereof slightly bent outward. When the cuff 2 is expanded to an expansion line by air supplied, it 2 expands beyond a boundary line of the plate member 10. On the other hand, when the cuff 2 is reduced from the expansion line by drawing out the air, the cuff is made to almost match the contour of the plate member 10. This enables correctly positioning of an airway with a pharynx part or a mask for the pharynx part.

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Applicant: SMITHS IND PLC

Inventor: NEAME SIMON

PAGAN ERIC

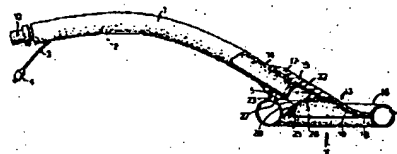
INSUFFLATOR WITH PHARYNX MASK
AND ITS MANUFACTURE LARYNGEAL
MASK AIRWAY AND ITS MANUFACTURE

Abstract:

PROBLEM TO BE SOLVED: To offer a laryngeal mask airway which can be manufactured at a low cost and its manufacture.

SOLUTION: The laryngeal mask airway includes a mask part 13 and an extension tube 1, the extension tube opens within the part 13 of a tip part 14 on a patient side in front of it and the part 13 is arranged within a lower larynx for airway ventilation for the patient at the time of using and adjusted to open a part on a front side. The part 13 is provided with a nearly elliptic fixing member 15 fixed to the tip part 14 on the patient side of the tube 1. Then, the tube 1 opens at the tip part on the side of the patient through an opening part 22 on the front surface 19 of the member 15, the part 13 is provided with an extensible member 16 provided with an extensible ring 22 and a center web extended within this ring, and the web is provided with an opening part 26 fixed to the front surface 19 of the member 15 and matched to the opening part of the member 15.

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Applicant: SMITHS IND PLC

Inventor: PAGAN ERIC

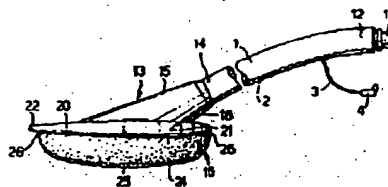
LARYNGEAL MASK ASSEMBLY

Abstract:

PROBLEM TO BE SOLVED: To enable a laryngeal mask assembly to be easily inserted into/removed from a cavity by compressing the cavity cover of the laryngeal mask assembly.

SOLUTION: This assembly is composed of a tube 1 and a mask part 13 provided at a patient side end part 14 of the tube 1, the tube 1 is opened in the center of the mask, and the mask part 13 is provided with a mount member 15 having a plate-shaped member 20 bonded to the patient side end part 14 of the tube and protruded outward. Then, the assembly has a cavity cover 16 composed of foamed materials and fitted to the plate-shaped member 20, the outside surface of the cavity cover 16 is provided with a facing 24 composed of foamed materials, the assembly has an air path 21 opened to the cavity cover 16 and in order to suck and insert the cavity cover through the air path 21, the cavity cover 16 is compressed.

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Applicant: SMITHS IND PLC

Inventor: PAGAN ERIC

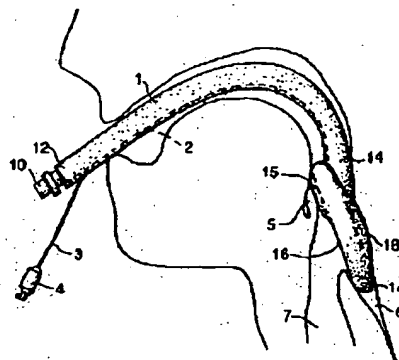
MASK ASSEMBLY FOR LARYNGEAL PART

Abstract:

PROBLEM TO BE SOLVED: To provide an improved mask assembly for laryngeal part.

SOLUTION: This invention relates to a mask assembly for laryngeal part, comprising an expandable cuff attached to an end part 14 of a tube 1 on a patient's side. The cuff includes a section 15 formed on its front surface 16 and a section 18 formed on its rear surface, and these sections expand preferentially with an increase in gas pressure. To insert the cuff into a human body, the cuff is expanded at a low pressure into a configuration. Then, to dispose the cuff precisely in the human body, the cuff is further expanded so that the section 15 of the front surface 16 may be expanded to be engaged with the epiglottis and that the section 18 of the rear surface 17 may be expanded to be engaged with the adjoining tissue so as to push the front surface 16 forward.

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Applicant: SMITHS IND PLC

Inventor: NEAME SIMON

LARYNGEAL MASK AIRWAY, AND ITS
MANUFACTURE

Abstract

PROBLEM TO BE SOLVED: To easily manufacture a patient side edge part of a mask, by mounting an almost oblong ellipse-shaped mounting member on the patient side edge part of a tube, and circularly mounting a cylindrical member made of a soft material, on a peripheral edge of the patient side edge part in such manner that a circular cuff is formed.

SOLUTION: A flexible tube 1 is made of a plastic material such as polyvinyl chloride, and a coupling 10 is mounted on an edge part 12. The tube 1 includes the lumen for expansion, in a wall, and is extruded and molded. A mask part 13 including a comparatively hard plastic mounting member 15, is formed on a patient side edge part 14 of the tube 1. That is, the oblong ellipse shaped or egg-shaped outer edge part which has a recessed notch part 19 having the shape of an inverted plate, is formed on the patient side edge part 18 of the mounting member 15. Then the expansible cuff 25 formed by an almost cylindrical member 30 made of a soft material such as polyurethane, is mounted on the same through a mounting plate 26. Whereby the patient side edge part can be easily manufactured.



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Applicant: SMITHS IND PLC

Inventor: PAGAN ERIC

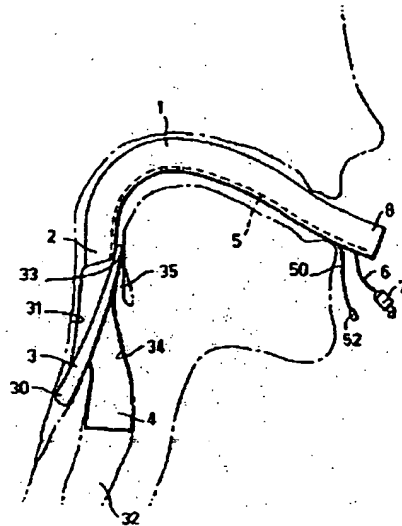
MASK ASSEMBLY FOR LARYNX PART

Abstract:

PROBLEM TO BE SOLVED: To effect sealing with a tissue at the part of a lower larynx by extending a tubular cuff structure member to an inlet of a larynx part and almost onto the axis of a tubular shaft to be expandable beyond a mask part.

SOLUTION: An mask assembly of a larynx part has a tubular shaft 1 including the mask part 30 formed out of an elastic skirt toward an end part 2 on the side of a patient and the tubular shaft is sealed with a tissue at the part of a lower larynx. An expandable cuff 4 having several tubular reinforced structure members sticks out in an shaft line to an inlet 34 of the assembly at the larynx part on the side of the patient. The cuff 4 has a flap toward an end part on the side of the patient and the flap has the passage thereof normally closed by the cuff to prevent the approach of an epiglottidea. The flap can be pulled to one way by a cord 50 having the flap fastened thereon and causes the epiglottidea to be deformed to open the passage running through the cuff 4.

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Applicant: AOKI SHIGERU
Inventor: AOMOTO SHIGERU
STABLE LARYNGEAL MASK

Abstract:

PROBLEM TO BE SOLVED: To provide a laryngeal mask which does not move to an incorrect position.

SOLUTION: An inserting stable device 1 with a cuff is fixed to the cuff end of a laryngeal mask. This device 1 is inserted and an air is injected with a syringe to expand the cuff of the laryngeal mask and the cuff of the inserting stable device 1 at the same time. Therefore, this device is easy to insert and resolves the problem of the mask moved to an correct position after an air is injected.

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